

# Preface

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The work reported herein was conducted as part of the Upper Mississippi River - Illinois Waterway (UMR-IWW) System Navigation Study. The information generated for this interim effort will be considered as part of the plan formulation process for the System Navigation Study.

The UMR-IWW System Navigation Study is being conducted by the U.S. Army Engineer Districts of Rock Island, St. Louis, and St. Paul under the authority of Section 216 of the Flood Control Act of 1970. Commercial navigation traffic is increasing, and in consideration of existing system lock constraints, will result in traffic delays which will continue to grow into the future. The system navigation study scope is to examine the feasibility of navigation improvements to the Upper Mississippi River and Illinois Waterway to reduce delays to commercial navigation traffic. The study will determine the location and appropriate sequencing of potential navigation improvements on the system, prioritizing the improvements for the 50-year planning horizon from 2000 through 2050. The final product of the System Navigation Study is a Feasibility Report which is the decision document for processing to Congress.

This study was conducted in the Coastal and Hydraulics Laboratory (CHL) of the U.S. Army Engineer Waterways Experiment Station (WES). The CHL was formed in October 1996 with the merger of the WES Coastal Engineering Research Center and the Hydraulics Laboratory. The work was conducted during the period of November 1993 to September 1997 under the direction of Mr. F. A. Herrmann, Jr., Director of the Hydraulics Laboratory; and Dr. J. R. Houston, Director of CHL.

Model development was performed by Dr. R. C. Berger under the supervision of Mr. W. H. McAnally, Chief, Estuaries and Hydrosociences Division, CHL. Dr. R. L. Stockstill worked under the supervision of Mr. G. A. Pickering, Chief of the Hydraulic Structures Division, Hydraulics Laboratory; and Dr. P. G. Combs, Chief of the Rivers and Structures Division, CHL. Technical assistance in the form of consultation was provided by Dr. S. T. Maynard, Navigation Branch, Navigation and Harbors Division, CHL. The report was written by Drs. Stockstill and Berger.